

REMARKS/ARGUMENTS

Claims 1 and 5-21 are pending in the application. Claims 1, 9, 14, and 20 are independent claims. Claims 5-8, 10-13, 15-19, and 21 are objected to, but would allowable if rewritten in independent form. Claims 1, 9, 14, and 20 are provisionally rejected under the judicially created doctrine of obvious-type double patenting as being allegedly unpatentable over claim 1 of U.S. patent application no. 10/121,963 (“the 963 application”).

The Office action recognizes that the rejection of claims 1, 9, 14, and 20 is “a provisional obviousness-type double patenting rejection” (Office action at p.3). Applicant has learned that U.S. patent no. 6,717,405 (“the 405 patent”) was granted on the 963 application on April 6, 2004. Applicant respectfully requests, therefore, that the provisional double-patenting rejection be withdrawn.

Applicant further respectfully submits that an obviousness-type double patenting rejection over the issued claims of the 405 patent would be improper. As an initial matter, Applicant notes that, although the 405 patent names the same sole inventor as the instant application, the 405 patent has been assigned to a different assignee. Applicant further notes that the 963 application was filed nearly four years after the filing of the provisional application from which the instant application claims priority.

Claim 1 of the 405 patent differs significantly from claim 1 of the 963 application. For example, claim 1 of the 405 patent was amended to recite “simultaneously applying a first amplitude modulated magnetic field gradient and a first amplitude modulated RF irradiation to continuously change for a first period of time a signal from [a] fluid before it flows into a region of interest.” By contrast, claim 1 of the 963 application recited “applying a first amplitude modulated magnetic field gradient to a predetermined volume of said fluid flowing into a region of interest” and “applying a first amplitude modulated RF irradiation to the predetermined volume.”

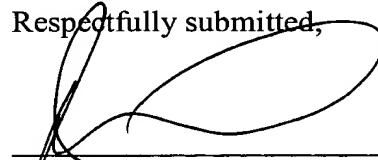
Claim 1 of the 405 patent was further amended to recite “simultaneously applying a second amplitude modulated magnetic field gradient and a second amplitude modulated RF irradiation to continuously change, for a second period of time, a signal from said fluid before it flows into the region of interest.” By contrast, claim 1 of the 963 application recited “applying a second RF irradiation to the predetermined volume of said fluid.”

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Applicant's claim 1 recites, among other things, "applying a *constant* RF irradiation together with a magnetic field gradient" and "applying *amplitude modulated* RF irradiation with a magnetic field gradient which, together, mimic the effects of *constant* RF radiation unrelated to blood flow." As the Office action notes, "applying a constant rf radiation would read in to the broader '963 claims of 'applying RF radiation'" (Office action at p.3). Applicant respectfully submits, however, that applying a *constant* RF radiation followed by an amplitude modulated irradiation that mimics *constant* RF, as recited in Applicant's claims, does not read in to claim 1 of the 405 patent, which recites, applying a first *amplitude modulated* radiation followed by a second *amplitude modulated* radiation. Applicant respectfully submits that the subject matter of the instant claims would not have been obvious in view of claim 1 of the 405 patent. That is, the claims of the instant application are patentably distinct from claim 1 of the 405 patent.

For all the foregoing reasons, Applicant respectfully requests reconsideration of the instant application and a notice of allowance for claims 1 and 5-21.

Respectfully submitted,


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